

PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Previously Presented) A method of transmitting a payload of data bits, comprising:
 - encoding the payload of data bits to generate a data packet containing systematic symbols replicating the data bits and redundancy symbols;
 - transmitting a first subpacket containing the systematic symbols and a first portion of the redundancy symbols to a remote location; and
 - in response to receiving a NAK message from the remote location, transmitting a second subpacket containing a second portion of the redundancy symbols to the remote location in accordance with a transmission format selected as a function of a computed expected total energy received at the remote location due to transmission of the first subpacket.
2. (Previously Presented) The method of claim 1 wherein the expected total energy received at the remote location due to transmission of the first subpacket is computed as a function of a number of symbols expected to have been received at the remote location.
3. (Previously Presented) The method of claim 2 wherein the transmission format is selected as a function of the computed expected total energy received at the remote location due to transmission of the first subpacket and the total number of symbols in the first and second subpackets.
4. (Previously Presented) The method of claim 1 wherein the transmission format is further selected as a function of expected losses at the remote location related to decoding the first and second subpackets jointly.
5. (Previously Presented) The method of claim 1 wherein the expected total energy received at the remote location is adjusted as a function of expected losses at the remote location relating to de-mapping the first subpacket.

6. (Previously Presented) The method of claim 1 wherein the transmission format is selected based on a target transmission energy level computed as a function of a coding rate of the combined first and second subpackets.

7. (Previously Presented) The method of claim 1 wherein the first subpacket is transmitted at a first coding rate, and the second subpacket is transmitted at a second coding rate higher than the first coding rate.

8. (Previously Presented) The method of claim 1 wherein the transmission format is further selected as a function of feedback from the remote location relating to wireless channel quality.

9. (Previously Presented) The method of claim 1 wherein the transmission format is selected as a function of a target transmission energy level corresponding to a potential transmission format and the computed expected total energy received at the remote location due to transmission of the first subpacket adjusted by expected losses at the remote location relating to de-mapping the first signal.

10. (Previously Presented) The method of claim 9 wherein the transmission format is selected by:

subtracting the adjusted computed expected total energy received at the remote location due to transmission of the first subpacket from the target transmission energy level for the potential transmission format;

computing a retransmission energy for the potential transmission format; and

eliminating the potential transmission format from consideration if the computed retransmission energy exceeds a threshold level.

11. (Previously Presented) The method of claim 8 wherein the feedback comprises an error rate at the remote location.

12. (Currently Amended) A communications apparatus for transmitting a payload of data bits encoded in a data packet as a plurality of systematic symbols and redundancy symbols, comprising:

a transmitter configured to transmit to a remote location a first subpacket containing the systematic symbols and a first portion of the redundancy symbols followed by a second subpacket containing a second portion of the redundancy symbols; and

a processor configured to select a transmission format for the second subpacket as a function of a computed level of expected energy received at the remote location due to transmission of the first subpacket,

wherein the processor is further configured to compute the level of expected energy received at the remote location due to transmission of the first subpacket as a function of the number of symbols contained in the first subpacket, and

wherein the processor is configured to compute a target transmission energy level as a function of the total number of symbols contained in the first and second subpackets.

13. (Canceled).

14. (Canceled).

15. (Currently Amended) The communications apparatus of claim [[14]] 12 wherein the processor is further configured to adjust the target transmission energy level as a function of expected losses at the remote location related to decoding the first and second subpackets jointly.

16. (Currently Amended) A communications apparatus for transmitting a payload of data bits encoded in a data packet as a plurality of systematic symbols and redundancy symbols, comprising:

a transmitter configured to transmit to a remote location a first subpacket containing the systematic symbols and a first portion of the redundancy symbols followed by a second subpacket containing a second portion of the redundancy symbols; and

a processor configured to select a transmission format for the second subpacket as a function of a computed level of expected energy received at the remote location due to transmission of the first subpacket.

~~The communications apparatus of claim 12~~ wherein the processor is further configured to adjust the computed level of expected energy received at the remote location due to transmission of the first subpacket as a function of expected losses at the remote location relating to de-mapping the first subpacket.

17. (Currently Amended) The communications apparatus of claim ~~[[14]]~~ 12 wherein the processor is further configured to compute the target transmission energy level as a function of a coding rate of the combined first and second subpackets.

18. (Previously Presented) The communications apparatus of claim 12 further comprising an encoder configured to encode the first subpacket at a first coding rate and the second subpacket at a second coding rate higher than the first coding rate.

19. (Previously Presented) The communications apparatus of claim 12 wherein the processor is further configured to compute the level of expected energy received at the remote location due to transmission of the first subpacket as a function of feedback from the remote location relating to wireless channel quality.

20. (Currently Amended) The communications apparatus of claim ~~[[14]]~~ 12 wherein the processor is further configured to select the transmission format as a function of the target transmission energy level and the computed level of expected energy received at the remote location due to transmission of the first subpacket adjusted by expected losses at the remote location relating to de-mapping the first subpacket.

21. (Previously Presented) The communications apparatus of claim 20 wherein the processor is further configured to compute a retransmission energy level by subtracting the adjusted computed level of expected energy received at the remote location due to transmission of the first subpacket from the target transmission energy level.

22. (Previously Presented) The communications apparatus of claim 19 wherein the feedback comprises an error rate at the remote location.

23. (Currently Amended) A communications apparatus for transmitting a payload of data bits encoded in a data packet as a plurality of systematic symbols and redundancy symbols, comprising:

means for transmitting to a remote location a first subpacket containing the systematic symbols and a first portion of the redundancy symbols followed by a second subpacket containing a second portion of the redundancy symbols;

determining means for determining a target transmission energy level as a function of a computed level of expected energy received at the remote location; and

means for selecting a transmission format for the second subpacket as a function of the target transmission energy level,

wherein the determination of the target transmission energy level by the determining means is further a function of characteristics of the first and second subpackets, and

wherein the determination of the target transmission energy level by the determining means is further a function of the total number of symbols contained in the first and second subpackets.

24. (Canceled).

25. (Canceled).

26. (Currently Amended) A communications apparatus for transmitting a payload of data bits encoded in a data packet as a plurality of systematic symbols and redundancy symbols, comprising:

means for transmitting to a remote location a first subpacket containing the systematic symbols and a first portion of the redundancy symbols followed by a second subpacket containing a second portion of the redundancy symbols;

determining means for determining a target transmission energy level as a function of a computed level of expected energy received at the remote location; and

means for selecting a transmission format for the second subpacket as a function of the target transmission energy level.

~~The communications apparatus of claim 23~~ wherein the determination of the target transmission energy level by the determining means is further a function of a coding rate of the combined first and second subpackets.

27. (Previously Presented) The communications apparatus of claim 23 further comprising means for encoding the first subpacket at a first coding rate and the second subpacket at a second coding rate higher than the first coding rate.